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(54) **SPECTROSCOPIC METHODS FOR BODY FLUID AGE DETERMINATION**

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(57) **ABSTRACT**

The present invention relates to a method of determining the age of a body fluid stain in a sample. This method involves providing the sample containing a body fluid stain; providing a statistical model for determination of the age of the body fluid stain in the sample; subjecting the sample or an area of the sample containing the stain to a spectroscopic analysis to produce a spectroscopic signature for the sample; and applying the spectroscopic signature for the sample to the statistical model to ascertain the age of the body fluid stain in the sample. A method of establishing a statistical model for determination of the age of a body fluid stain in a sample is also disclosed.

20 Claims, 26 Drawing Sheets